

ABSTRACT

A new digital follower device is achieved. The digital follower device comprises an n-channel vertical FET device and a p-channel vertical FET device. Each vertical FET device comprises a bulk region in a semiconductor substrate. The bulk region comprises a first doping type. A STI region is in the bulk region. A drain region is on a first side of the STI region. The drain region overlies the bulk region. The drain region comprises the first doping type. A gate region is on a second side of the STI region. The gate region comprises the first doping type. A voltage on the gate region controls a vertical channel in the bulk region. A buried region is between the gate region and the bulk region. The buried region comprises a second doping type. The n-channel FET device drain and the p-channel FET device drain are connected together. The n-channel FET device gate and the p-channel FET device gate are connected together.